

U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

The Energy Savings of Truck Platooning

NASEO

November 27, 2019

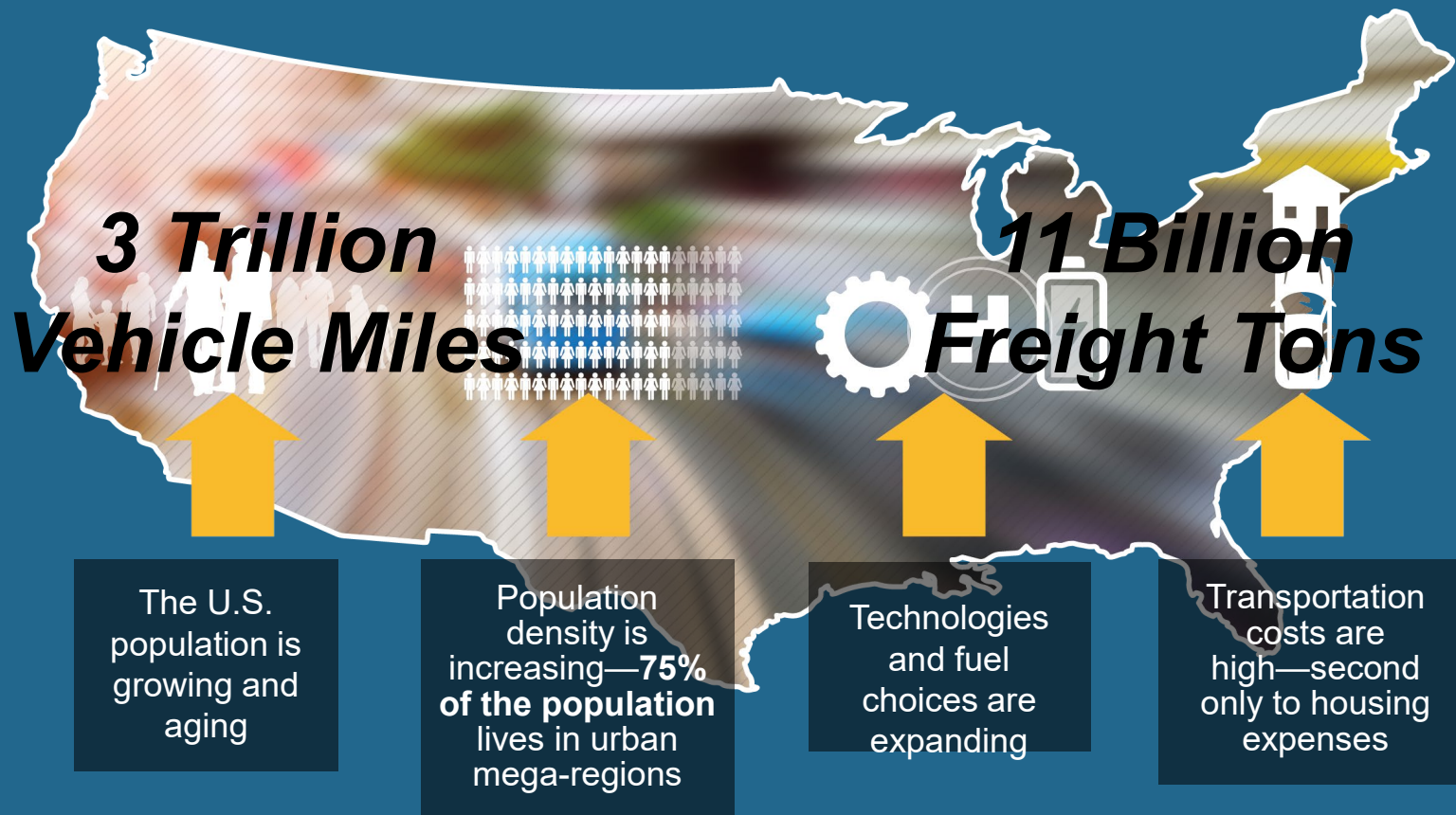
Vehicle Technologies Office

Mark Smith

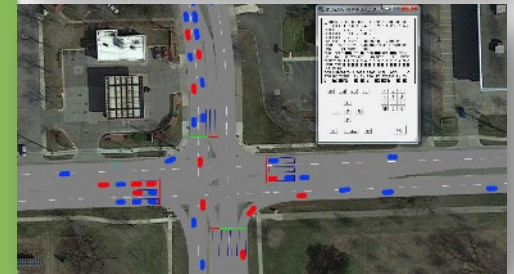
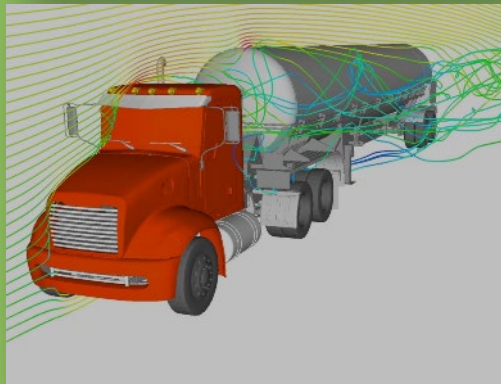
Program Manager, Technology Integration



TRANSPORTATION IS FUNDAMENTAL TO **OUR WAY OF LIFE**



ALL LEVELS

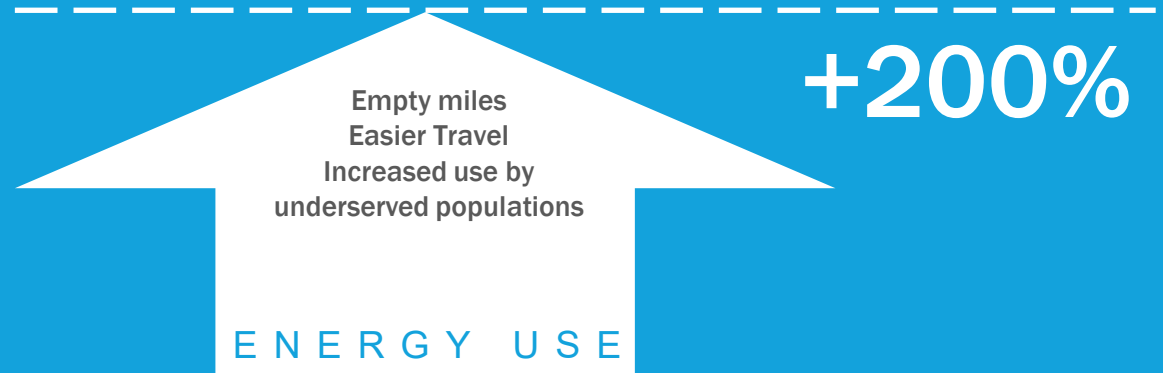


Component

Vehicle

System

EEMS PROGRAM



**Shared
Mobility**

**Mobility
On Demand**

**Goods
On Demand**

**Connected &
Automated Vehicles**

**Emerging Fuels
& Powertrains**

**New Modes
of Transport**



ACHIEVING GOALS



**Advanced R&D
Projects**



Living Labs

**THROUGH FIVE EEMS
ACTIVITY AREAS**



**Smart Mobility
Lab Consortium**



**Core Evaluation &
Simulation Tools**



**HPC4Mobility &
Big Transportation Data Analytics**

**Advanced
Fueling
Infrastructure**



**Connected &
Automated
Vehicles**



Urban Science



SMART MOBILITY LAB

CONSORTIUM

**7 labs, 30+ projects, 65 researchers,
\$34M* over 3 years.**

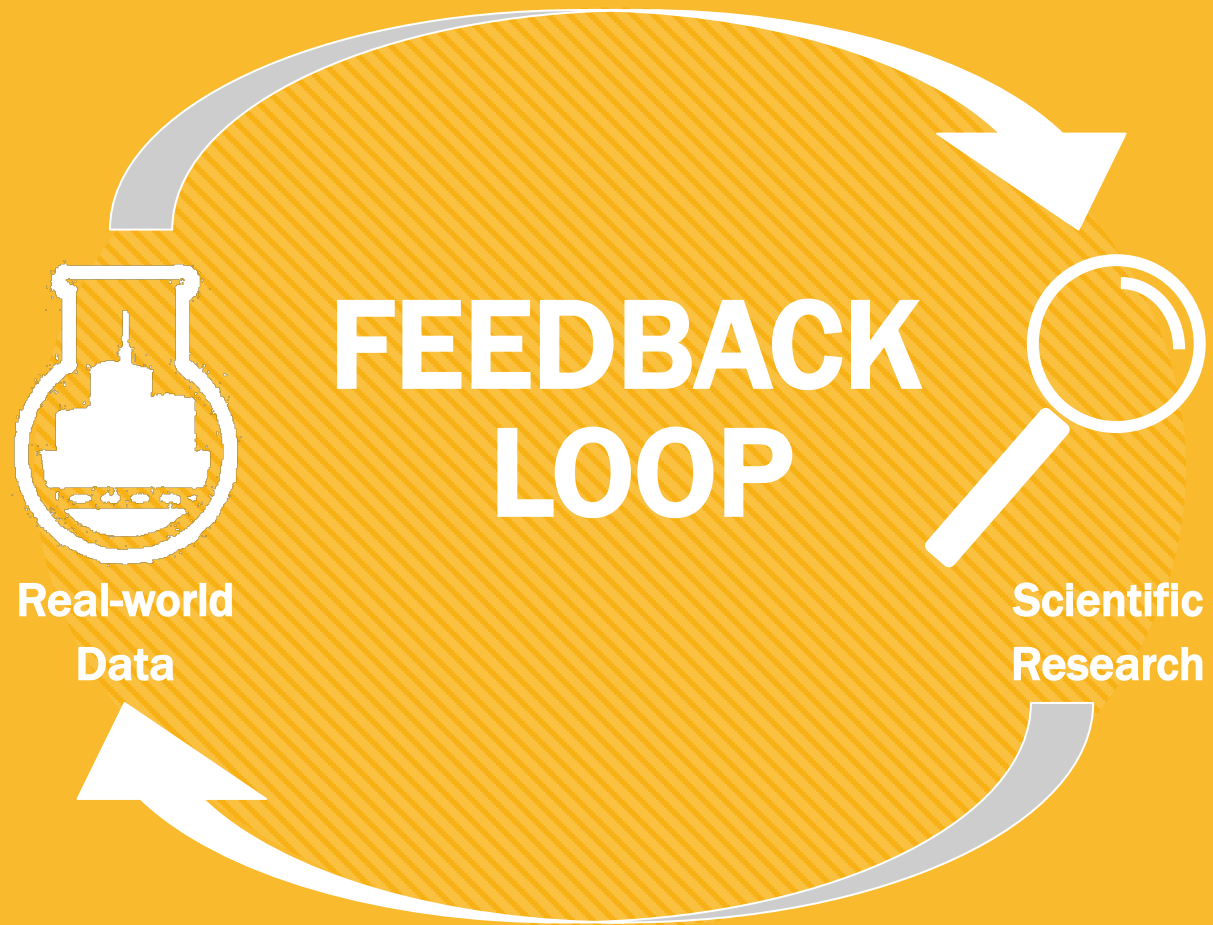
**Mobility Decision
Science**



**Multi-Modal
Transport**

*Based on anticipated funding

TECHNOLOGY INTEGRATION



LIVING LABS

3 Projects, \$4.9M in FY2017

15 Projects, \$27M in FY2018



ELECTRIC SHARED MOBILITY

Seattle, Portland, NYC, Denver
Uber, GM's Maven, BMW's ReachNow

High Performance Computing
for Transportation Hubs



ELECTRIC LAST MILE

Austin
Pecan Street, CapMetro

First/Last Mile for
People/Goods Movement



System-Level Data for
Energy Efficient Mobility



ENERGY EFFICIENT FREIGHT LOGISTICS

NYC-Albany Corridor
Rensselaer Polytechnic Institute, freight carriers & receivers, urban supply chain

Fuel Efficient Platooning



Multi-Unit Dwelling & Curbside
Residential Charging Innovation



Open Topic



Fuel Efficient Platooning



- ***American Center for Mobility***

Project Title: Fuel-Efficient Platooning in Mixed Traffic Highway Environments

- Improve multi-vehicle platooning efficiency and safety
- Demonstrate multi-vehicle platooning in less than ideal weather conditions
- Validate National Laboratory and University simulation models
- Builds upon prior federal investment in autonomous trucks

- ***Cummins Inc.***

Project Title: Advancing Platooning with ADAS Control Integration and Assessment

- Impact of variation of driving scenarios and variation in operational missions, that will be encountered in commercial use
- Provide valuable data and insight into the challenges that platooning technology has in achieving maximum fuel savings

OUR VISION



ACHIEVING

MOBILITY ENERGY PRODUCTIVITY

more choices

more affordable

when & where it is needed



THANK YOU

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[Energy.gov/eere/vehicles](https://energy.gov/eere/vehicles)